

# RECOZOL DYESTUFFS



In to a colourful business..



**MEGHMANI**  
**DYES & INTERMEDIATES LTD.**

独家代理印度锐科素双活性染料

## MEGHMANI DYES AND INTERMEDIATES LTD.

### Characteristics of RECOZOL Reactive Dyestuffs

#### RECOZOL

reactive colors are five groups of reactive dyes manufactured by Meghmani Dyes and Intermediates Ltd for all cellulosic fibres, silk and viscose rayon.

#### RECOZOL

reactive colors form a chemical linkage with the cellulosic fibres in the presence of alkalies, and therefore are characterized by their excellent fastness.

#### RECOZOL

reactive colors are easy to use and applicable extensively in various fields such as exhaust dyeing, continuous dyeing and printing etc.

#### RECOZOL BIFUNCTIONAL DYES COLORS

are reactive dyes containing monochlorotriazinyl and vinylsulfone group as a reactive radical and useful for dyeing of cellulosic fibres. These colors are suitable for exhaust dyeing (60°C, 140°F), continuous dyeing and printing.

#### RECOZOL VINYLSULFONE DYES COLORS






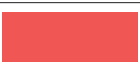












are reactive dyes containing vinylsulfone groups as a reactive radical. RECOZOL colors are suitable for exhaust dyeing (60°C, 140°F) continuous dyeing and printing.




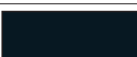
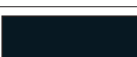




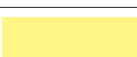








#### RECOZOL H-E COLORS










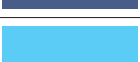







are reactive dyes containing monochlorotriazinyl group as a reactive radical and high fixation on dyeing fabric blends on polyester/cotton. These colors are suitable for exhaust dyeing (80°C, 176°F) of medium/heavy colors as high color yield.

#### RECOZOL P -DYES COLORS


















are reactive dyes containing monochlorotriazinyl group as a reactive radical. These are useful for the Printing of cellulosic fibres and viscose rayon. RECOZOL P -type colors are applied to steaming at 100~105°C (212 ~221°F)

RECOZOL ( REACTIVE DYE )			C.I.Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3%(o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
"BIFUNCTIONAL" HF TYPE DYES		Yellow HF - 4GL 125%	Y I 160A	4	4-5 4	4-5 4	4-5 4	120
		Yellow HF - 3RX 150%	Y I 145	5	4-5 4-5	4-5 4	4-5 4	200
		★ Yellow HF - DR H/C	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	100
		Orange HF - GRN	—	4-5	4 3	4 3-4	4 3-4	100
		Orange HF - 2RX 125%	O I 122	4	4-5 4	5 4-5	5 4-5	120
		Red HF - 3GX	R I 227	4-5	4-5 4-5	4-5 4-5	4-5 4-5	100
		Red HF - 2GF 200%	R I 222	6-7	4-5 4	4-5 4-5	4-5 4-5	100
		Red HF - GX 150%	R I 223	5	4-5 4	4-5 4-5	4-5 4-5	100
		Red HF - 2GX 125%	R I 194	4-5	4-5 4	4-5 4	4-5 4	100
		Red HF - 3BX 150%	R I 195	5	4-5 4-5	4-5 4-5	4-5 4-5	200
		Red HF - 6BX 150%	R I 250	4-5	4-5 4	4-5 4	4-5 4	80
		★ Red HF - DB H/C	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	50
		Blue HF - RX 120%	—	4	4-5 4-5	4 4-5	4-5 4-5	100
		Blue HF - BRX	B I 221	4	4-5 4-5	5 4-5	5 4-5	100
		Turq.Blue HF - BG 150%	B I 231	5	3-4 3	4 4-5	4 4-5	200
		Blue HF - 3GX	—	4-5	4-5 4-5	4-5 4	4-5 4	200
		Blue HF - 2GX	B I 194	4-5	4-5 4	5 4-5	5 4-5	100
		Blue HF - BX	B I 222	4	4-5 4-5	4-5 4	4-5 4	200

RECOZOL ( REACTIVE DYE )			C.I. Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3%(o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
"HF" TYPE		Blue HF - BF	B I 222A	4-5	4 4-5	4 3	4 3	200
		★ Blue HF - DF H/C	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	180
		Black HF - GRN	—	4	4-5 4-5	4-5 4-5	4-5 4-5	300
		Black HF - GF	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	200
		Black HF - GR 120%	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	250
		Black HF - EX	—	4-5	4-5 4	4-5 4-5	4-5 4-5	200
		Black HF - GRR	—	4	3	4 4	4 4	180
		Black HF - GSP	—	4-5	4-5 4	4-5 4-5	4-5 4-5	300
"VINYL SULPHONE" TYPE DYES		Yellow 4GL	Y I 186	4	4-5 4	4 4	4 4	120
		Yellow FG	Y I 42	4-5	5 5	5 4-5	5 4-5	150
		Yellow GL 150%	Y I 37	5	5 5	5 4-5	5 4-5	130
		Yellow GN 150%	Y I 23	5	4 4-5	4-5 4-5	4-5 4-5	150
		Yellow GR	Y I 15	5	5 5	5 4-5	5 4-5	150
		Yellow RNL 150%	O I 107	5	4 4	4-5 4-5	4-5 4-5	200
		Yellow RR	—	4	4-5 4	5 4-5	5 4-5	150
		Orange 3R	O I 16	5	4-5 4-5	4-5 4-5	4-5 4-5	120
		Red C - 2G	R I 106	4-5	4 5	4-5 4-5	4-5 4-5	100
		Red BB 150%	R I 21	4-5	4-5 4-5	4-5 5	4-5 5	150









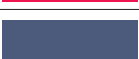

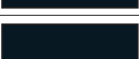
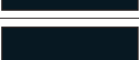






RECOZOL ( REACTIVE DYE )			C.I.Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3%(o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
"VINYL SUPHONE" TYPE DYES		Red RB 140%	R I 198	5-6	4-5 5	5 4-5	5 4-5	100
		Red 5B	R I 35	5	4-5 4-5	4-5 5	4-5 5	150
		Red RR	—	4-5	4-5 4	4-5 4-5	4-5 4-5	150
		Red 5BX	R I 198A	4-5	4-5 4-5	4-5 4-5	4-5 4-5	120
		Red BS 200%	—	5-6	4-5 4	4-5 4-5	4-5 4-5	60
		Violet 5R 140%	V I 5	5	4 4-5	4-5 5	4-5 5	150
		Blue 3R	B I 28	5	4 4-5	4-5 4-5	4-5 4-5	100
		Blue R	B I 19	5	4-5 4-5	4-5 5	4-5 5	100
		Blue BB 133%	B I 220	5	4-5 4-5	4-5 4-5	4-5 4-5	200
		Trqu.Blue G	B I 21	4-5	4-5 5	4-5 3-4	4-5 3-4	150
		Blue JKG H/C	B I 21A	4-5	4 3-4	4 4	4 4	180
		Blue RR	—	4	4-5 4	4-5 4-5	4-5 4-5	100
		Navy Blue GG	B I 203	5	4-5 4-5	4-5 4-5	4-5 4-5	120
		Brown GR	Br I 18	4-5	4-5 4-5	4 5	4 3-4	100
		Black RL	Bl I 31	4-5	4 4	3-4 5	3-4 5	100
		Black B	Bl I 5	4-5	4-5 4-5	5 4-5	5 4-5	250
		Black NR	—	4-5	4 4-5	4 4	4 4	120

Note:Trqu.Blue G: Dyeing temp.:60°C,Fixing temp.:95°C  
The dye name with a "★" is heavier shade.

RECOZOL ( REACTIVE DYE )			C.I.Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3%(o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
"HE" TYPE DYES		Yellow HE - 6G	Y I 135	4-5	4-5 5	4-5 5	4-5 5	150
		Yellow HE - 4G	Y I 105	5	4-5 5	4-5 5	4-5 4-5	100
		Yellow HE - 3G	—	6	4-5	4-5 4-5	4-5 4-5	25
		Yellow HE - 4R	Y I 84	4-5	4-5 5	4-5 5	4-5 4-5	140
		Yellow HE - XL	—	4-5	4-5 4-5	5 5	5 5	200
		Orange HE - 2G	O I 20	5	4 4-5	3-4 3-4	4 3-4	70
		Orange HE - R	O I 84	4	4 5	4 4-5	4 4	100
		Red HE- 3G	—	5-6	5	4 4	4 4	100
		Red HE- 3B	R I 120	5	5 5	4-5 4-5	4-5 5	120
		CrimsonHE - XL	—	4	4-5 4-5	4-5 4-5	4-5 4-5	100
		Red HE - 7B	R I 141	4-5	4-5 4-5	5 4-5	5 4-5	150
		Blue HE - GN	B I 198	4-5	4-5 4-5	4-5 4-5	4-5 4-5	100
		Blue HE - RD	B I 160	4-5	4-5 4-5	4-5 4	4-5 4	100
		Navy Blue HE - R 150%	B I 171	4-5	4-5 4-5	4 5	4-5 4	120
		Blue HE - XL	—	4	4-5 4-5	4-5 4-5	4-5 4	100
		Navy Blue HE - 2R	B I 89	4	4-5 4-5	4-5 4-5	4-5 4-5	120
		Green HE - 4BD	G I 19	4-5	4-5 4-5	4-5 4-5	4-5 5	100

Note:CH=change of colour,CO=staining on cotton  
Dyeing depth of black dyes is 6%

RECOZOL ( REACTIVE DYE )			C.I. Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3% (o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
"P" TYPE DYES		Yellow P&G	Y I 85	6-7	5 5	4-5 4-5	4-5 4-5	250
		Yellow P5G	Y I 2	5	4 5	4 5	4 5	60
		Yellow P4G	Y I 18	5	5 5	4-5 4-5	4-5 4-5	150
		Golden Yellow PR	O I 12	5	5 5	4-5 4-5	4-5 4-5	100
		Orange P2R	O I 13	4	4-5 5	4-5 4	4 4	100
		Red PB	R I 24	5	4-5 5	4 5	4 5	150
		Red P3B	R I 45	5	3-4 4	4-5 4	4-5 4	100
		Red P4B	—	4	5 5	4-5 4-5	4-5 4-5	130
		Red 6BX(P)	R I 76	4-5	4-5 5	4-5 4-5	4-5 4-5	80
		Red P8B	R I 31	4-5	4-5 4	4 4-5	4 4-5	80
		Purple P3R	V I 1	6-7	5 5	4-5 4-5	4-5 4-5	160
		Blue 5RH	B I 13	5-6	4-5 4-5	4-5 4-5	4-5 4	100
		Blue P3R	B I 49	4-5	4-5 4	4-5 4-5	4-5 4	80
		Blue PGR	B I 5	6	5 5	4-5 5	4-5 5	90
		Turp. Blue PA	B I 71	6	4 4	4 4-5	4 4-5	100
		Brown P4R	Br I 9	4-5	5 4-5	4-5 4-5	4-5 4-5	100
		Navy Blue P2R	B I 39	4-5	4-5 5	4-5 4-5	4-5 4-5	80
		Black PN	Bl I 8	5	4-5 5	4-5 4	4-5 3-4	40

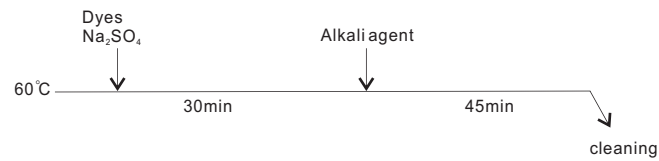
RECOZOL ( REACTIVE DYE )			C.I.Reactive No.	Fastness (1/1)				Solubility 50°C g/l
Type	Color Sample (Cotton) 3%(o.w.f)	Name of Dyes		Light (Xenon)	Washing 95°C CH CO	Perspiration		
						Acidic CH CO	Alkaline CH CO	
NEW TYPE DYES		Yellow XL	—	4-5	4-5 4-5	4-5 4-5	4-5 4-5	150
		Red XL	—	4-5	4 4	4 4	4 4	100
		Red XL3B	—	4	4-5 4	4 4	3-4 3-4	100
		Blue XL	—	4-5	4-5 4	4 3	4 3	100
		Navy Blue XL	—	4	4-5 4	4 4	3-4 3-4	100
		Black XL	—	5	4 4	4 3-4	4 3-4	150
		Yellow HW H/C	—	4-5	4 4	4-5 3	4-5 3	100
		Red HW H/C	—	5	4 3	4-5 3	4-5 3	200
		Blue HW	—	4-5	4 3-4	4 3	4 3	180
		Black TWNN H/C	—	5	4 4	4 3-4	4 3-4	150
		Black HF - W H/C	—	5	4 4	4 3-4	4 3-4	150
		Black H-R	—	6	4 4	4 3-4	4 3-4	180
		Black H-G	—	6	4 4	4 3-4	4 3-4	180
		Black ED-H	—	5	4 4	4 3-4	4 3-4	150
		Black ED-Q	—	5	4 4	4 3-4	4 3-4	150
		Black HF-S	—	5	4 4	4 3-4	4 3-4	150
		Black HF-RC	—	5	4 4	4 3-4	4 3-4	150
		Black RRH	—	5	4 4	4 3-4	4 3-4	150



## Application of RECOZOL Dyes

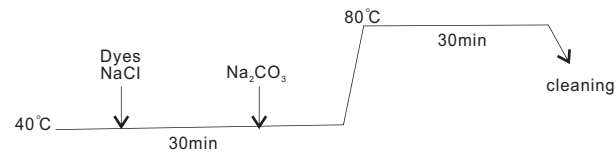
### 1. Exhaust dyeing

#### 1.1 Procedure of Vinyl suphone type, HF type, new type.

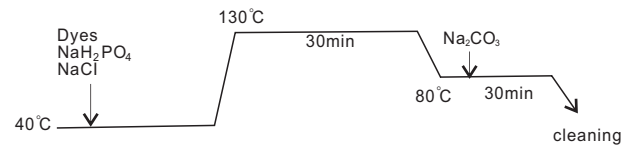


#### 1.2 Procedure of HE Type

##### 1.2.1 Common process



##### 1.2.2 Process at high temp. and high press



### 1.3 Recipes

	NaCl g/l			Na <sub>2</sub> SO <sub>4</sub> g/l			Na <sub>2</sub> CO <sub>3</sub> g/l			Na <sub>3</sub> PO <sub>4</sub> g/l		
	<1%	1-3%	>3%	<1%	1-3%	>3%	<1%	1-3%	>3%	<1%	1-3%	>3%
Dyeing depth(o. w. f.)	<1%	1-3%	>3%	<1%	1-3%	>3%	<1%	1-3%	>3%	<1%	1-3%	>3%
Vinyl suphone type	-	-	-	50	60	60	-	-	-	5	9	10-15
HF Type New Type	-	-	-	35	50	60	10	10-15	15-20	-	-	-
HE Type	30	60	80	-	-	-	15	20	20	-	-	-

#### 1.4 Cleaning

Cold rinsing → Hot rinsing → Soaping (95 °C, 15min) → Hot rinsing  
→ Cold rinsing

### 2. Padding dyeing process

#### 2.1 One-Bath continuous dyeing

##### 2.1.1 Recipe of dyeing liquor

Dye ..... x g/l, Urea ..... 50 ~ 100 g/l, NaHCO<sub>3</sub> ..... 10 ~ 20 g/l, S

Reserve salt S ..... 10 g/l, 6% Sodium alginate thickener ..... 10  
g/l

##### 2.1.2 Procedure

Padding( Pick - up.:70% ) → Drying -  
→ Steaming(102 - 105 °C ,60 ~ 90sec) ] → Rinsing → Soaping  
Baking(150-160°C ,60sec) ]  
(95 °C ,15min) → Rinsing

#### 2.2 Two - Bath continuous dyeing

##### 2.2.1 Recipe of Dyeing liquor

Dye ..... x g/l, Penetrater ..... 0.2g/l,  
6% Sodium alginate thickener ..... 10 g/l

##### 2.2.2 Recipe of mixing alkali liquor

NaOH ( 38° Be ' ) ..... 15ml/l, Na<sub>2</sub>CO<sub>3</sub> ..... 20g/l,  
NaCl ..... 200g/l, Reserve Salt S ..... 10g/l.

##### 2.2.3 Procedure

Padding( Pick - up:65% ) → Drying → Padding with alkali liquor →  
Steaming( 102 ~ 105 °C ,60 ~ 90 sec) → Rinsing → Soaping (95 °C ,  
15min) → Rinsing

### 3. Printing process(P Type)

#### 3.1 Recipes

Dyes ..... x%(o. w. p. ) , Water ..... 30% ,Reserve Salt S ..... 1%  
NaHCO<sub>3</sub> ..... 2 ~ 3% , Urea ..... 10% , 6% Sodium alginate thickener  
..... 50%

#### 3.2 procedure

printing → pre-drying —  $\left[ \begin{array}{l} \rightarrow \text{Steaming ( 102}^\circ\text{C , 5 ~ 7min )} \\ \rightarrow \text{Baking( 150 ~ 160}^\circ\text{C , 1 ~ 2min )} \end{array} \right]$  → Cold  
rinsing → Hot rinsing → Soaping ( 95 C, 15 min ) → Hot rinsing → Cold  
rinsing

For reference only



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